

Syllabus

Cambridge O Level Food and Nutrition

Syllabus code 6065

For examination in June and November 2011



UNIVERSITY *of* CAMBRIDGE
International Examinations

Note for Exams Officers: Before making Final Entries, please check availability of the codes for the components and options in the E3 booklet (titled "Procedures for the Submission of Entries") relevant to the exam session. Please note that component and option codes are subject to change.

Contents

Cambridge O Level Food and Nutrition Syllabus code 6065

1. Introduction	2
1.1 Why choose Cambridge?	
1.2 Why choose Cambridge O Level Food and Nutrition?	
1.3 How can I find out more?	
2. Assessment at a glance	5
3. Syllabus aims and assessment	6
3.1 Aims	
3.2 Assessment objectives	
3.3 Exam combinations	
3.4 Notes	
4. Syllabus content	9
5. Paper 2: practical test	12
5.1 Practical test administration	
5.2 Generic mark scheme	
5.3 Practical Examination Working Mark Sheet	
5.4 Summary Marksheet	
5.5 Note on internal moderation	
6. Assessment forms	18
6.1 Preparation for the practical examination: Page 1 – Plan of Work	
6.2 Preparation for the practical examination: Page 2 – Time Plan	
6.3 Preparation for the practical examination: Page 3 – Shopping List	
6.4 O Level Practical Examination Working Marksheet	
6.5 O Level Practical Examination Summary Marksheet	

1. Introduction

1.1 Why choose Cambridge?

University of Cambridge International Examinations (CIE) is the world's largest provider of international qualifications. Around 1.5 million students from 150 countries enter Cambridge examinations every year. What makes educators around the world choose Cambridge?

Developed for an international audience

International O Levels have been designed specially for an international audience and are sensitive to the needs of different countries. These qualifications are designed for students whose first language may not be English and this is acknowledged throughout the examination process. The curriculum also allows teaching to be placed in a localised context, making it relevant in varying regions.

Recognition

Cambridge O Levels are internationally recognised by schools, universities and employers as equivalent to UK GCSE. They are excellent preparation for A/AS Level, the Advanced International Certificate of Education (AICE), US Advanced Placement Programme and the International Baccalaureate (IB) Diploma. CIE is accredited by the UK Government regulator, the Qualifications and Curriculum Authority (QCA). Learn more at www.cie.org.uk/recognition.

Support

CIE provides a world-class support service for teachers and exams officers. We offer a wide range of teacher materials to Centres, plus teacher training (online and face-to-face) and student support materials. Exams officers can trust in reliable, efficient administration of exams entry and excellent, personal support from CIE Customer Services. Learn more at www.cie.org.uk/teachers.

Excellence in education

Cambridge qualifications develop successful students. They not only build understanding and knowledge required for progression, but also learning and thinking skills that help students become independent learners and equip them for life.

Not-for-profit, part of the University of Cambridge

CIE is part of Cambridge Assessment, a not-for-profit organisation and part of the University of Cambridge. The needs of teachers and learners are at the core of what we do. CIE invests constantly in improving its qualifications and services. We draw upon education research in developing our qualifications.

1. Introduction

1.2 Why choose Cambridge O Level Food and Nutrition?

International O Levels are established qualifications that keep pace with educational developments and trends. The International O Level curriculum places emphasis on broad and balanced study across a wide range of subject areas. The curriculum is structured so that students attain both practical skills and theoretical knowledge.

Cambridge O Level Food and Nutrition is accepted by universities and employers as proof of ability and understanding. Successful O Level Food and Nutrition candidates gain lifelong skills, including:

- an understanding of nutrition and of health problems related to diet
- an understanding of how socio-economic factors affect diet
- an awareness of how eating patterns and dietary needs depend on age and social group
- an awareness of how the position of the consumer differs in developed and under-developed economies
- the ability to assess the effectiveness and validity of claims made by advertisers
- aesthetic and social sensitivity to dietary patterns
- an interest in the creative aspect and enjoyment of food
- skills necessary for food preparation and food preservation
- the ability to organise and manage family food resources and to use food sensibly in everyday life
- knowledge of safety and hygiene requirements

Cambridge O Level Food and Nutrition is an ideal foundation for further study at A Level, and the skills learnt can also be used in other areas of study and in everyday life.

Students may also study for a Cambridge O Level in other Social Science subjects such as Home Management, Agriculture and Environmental Management. In addition to Cambridge O Levels, CIE also offers Cambridge IGCSE and International A & AS Levels for further study in Food Studies as well as other related subjects. See www.cie.org.uk for a full list of the qualifications you can take.

1. Introduction

1.3 How can I find out more?

If you are already a Cambridge Centre

You can make entries for this qualification through your usual channels, e.g. your regional representative, the British Council or CIE Direct. If you have any queries, please contact us at **international@cie.org.uk**.

If you are not a Cambridge Centre

You can find out how your organisation can become a Cambridge Centre. Email either your local British Council representative or CIE at **international@cie.org.uk**. Learn more about the benefits of becoming a Cambridge Centre at **www.cie.org.uk**.

2. Assessment at a glance

Cambridge O Level Food and Nutrition Syllabus code 6065

Paper 1 Theory	2 hours
This paper consists of section A and section B. Section A consists of compulsory short-answer type questions of varying difficulty.	
50% of total marks	

Paper 2 Practical	2 hours 30 minutes with planning session of 1 hour 30 minutes
Candidates have a planning session of 1 hour 30 minutes one week before the practical examination of 2 hours and 30 minutes. At the start of the planning session candidates are given their allocated test question (as detailed in the Confidential Instructions) and three preparation sheets. At the end of the planning session all three preparation sheets are returned to the examiner. At the start of the practical exam the preparation sheets are returned to the candidate.	
50% of total marks	

3. Syllabus aims and assessment

Entries for this subject cannot be accepted unless the Education Authority, Ministry or Centre/s concerned has cleared arrangements for the practical examination with CIE. The Education Authority, Ministry or Centre/s should be satisfied that there are appropriate facilities and equipment for the practical component of the examination. Each candidate should have sole use of a cooker or stove, a range of basic cooking equipment and access to labour saving equipment during the practical test.

Basic Equipment

Bowls, scales, measuring equipment, various knives for different purposes, various spoons and spatulas, baking tins, cake tins, greaseproof paper etc.

Specialised Equipment

Hand whisk, draining spoons, graters, pressure cookers etc.

Desirable Equipment (not essential)

Electric mixers, liquidisers/blenders etc.

It is expected that candidates will have access to refrigerators and freezers if possible.

Practical Examiners must be independent and qualified to teach this subject at this level. Education Authorities, Ministries or Centres must organise their own system of teacher moderation.

3.1 Aims

- 1 to encourage an awareness of the relationship between diet and health in everyday life
- 2 to develop qualities of organisation of self and resources
- 3 to develop skills necessary to provide well-balanced meals for all members of the family considering age, health, occupation etc.
- 4 to develop an awareness of the nutritive value of basic foods
- 5 to encourage a discriminating and informed approach to the consumer society through the considerations of diet, specific nutritional requirements, safety requirements and recognition of quality in the context of Food and Nutrition
- 6 to stimulate and sustain an interest in and enjoyment of the creative use of food
- 7 to encourage high standards of personal and kitchen hygiene in order to ensure safety of food

3. Syllabus aims and assessment

3.2 Assessment objectives

Candidates should be able to:

- 1 identify the varying human needs and factors in relation to social, economic and environmental implications;
- 2 correctly use equipment and tools;
- 3 understand basic safety and hygiene rules and regulations;
- 4 recall, interpret, select and apply knowledge relevant to the areas of study identified in the syllabus;
- 5 identify and justify priorities within a given situation and communicate ideas accurately and systematically;
- 6 interpret written information correctly;
- 7 demonstrate manipulative skills in food preparation;
- 8 show ability to work with precision within specified time and appreciate the need for accuracy;
- 9 plan and organise an area of study;
- 10 carry out the planned study using appropriate materials, processes and skills.

3.3 Exam combinations

Candidates can combine this syllabus in an exam session with any other CIE syllabus, except:

- 0611 Food and Nutrition (Botswana)
- 0639 Home Economics (Namibia)
- 0648 Food and Nutrition
- 6070 Food and Nutrition (Singapore)
- 6071 Food and Nutrition (Singapore)
- 6082 Food and Nutrition (Singapore)
- 6083 Food and Nutrition (Syllabus A) (Singapore)
- 6084 Food Studies (Syllabus T) (Singapore)

Please note that O Level, Cambridge International Level 1/Level 2 Certificates and IGCSE syllabuses are at the same level.

3. Syllabus aims and assessment

3.4 Notes

- 1 During the Practical Exam, Centres must allow enough space and satisfactory equipment for each candidate. Only one or two candidates should work at one stove/cooker of the European type.
- 2 Centres must have the formal approval of CIE for all practical examiners and the practical examiners must follow an assessment scheme prepared by CIE. The generic content of the mark scheme is in section 5.2. Examiners must record the marks available and the marks awarded on the Practical Examination Working Marksheet (see section 7.4). The final marks that the examiner awards must reflect the requirements of the specific tasks given in each exam session.
- 3 The assessment objectives are weighted to show their relative importance. The weightings do not give a precise statement of the number of marks allocated to particular assessment objectives.

4. Syllabus content

Topic	Areas of study
1 An understanding of the terms used in nutrition and nutrition-related problems	Diet, balanced diet, metabolism, malnutrition, under-nutrition, over-nutrition, deficiency disease.
2 Nutritive value of foods	<p>The sources and functions of:</p> <ul style="list-style-type: none"> • <i>proteins</i> (high biological and low biological value), carbohydrates (monosaccharide, disaccharide and polysaccharide), • <i>fats</i>, • <i>vitamins</i> (A, D, C, B group – thiamin, riboflavin, nicotinic acid and B₁₂), • <i>mineral elements</i> (calcium, phosphorous, iron, sodium chloride, chlorine, iodine, fluorine), • <i>water</i>. <p>Sources and uses of food energy. Sources and functions of dietary fibre.</p>
3 Digestion and absorption	<p>Digestion at each stage of the digestive system:</p> <ul style="list-style-type: none"> • mouth, • stomach, • duodenum, • ileum. <p>Enzymes as catalyst in the digestive process. Absorption – structure of ileum.</p>
4 Dietary guidelines	<p>Factors affecting food requirements. Planning and serving of family meals. Meals for all ages and occupations. Special needs of:</p> <ul style="list-style-type: none"> • pregnant and lactating women, • convalescents, • vegetarians (vegans and lacto-vegetarians). <p>Meals for special occasions, festivals, packed meals, snacks (light refreshment), beverages. Use of herbs, spices and garnishes. Attractive presentation of food.</p>

4. Syllabus content

Topic	Areas of study
5 Composition and value of the main foods in the diet	Milk, meat, fish, cheese, eggs, margarine and butter; cereals (wheat, rice, maize, millets, oats); fruits and vegetables (importance of pulses and nuts as inexpensive sources of protein, especially the soya bean because of its higher protein value and content – contains high biological value protein).
6 Cooking of food	Transfer of heat by conduction, convection and radiation. Principles involved in the different methods of cooking – boiling, stewing, grilling, baking, roasting, frying, steaming, pressure cooking. Reasons for cooking food. Effect of dry and moist heat on proteins, fats and oils, sugars and starches, vitamins A, B, C and D. Preparation and cooking of food to preserve nutritive value and flavour. Traditional methods of cooking. Economical use of food, equipment, fuel and labour.
7 Convenience foods	Foods partly or totally prepared by a food manufacturer – dehydrated, tinned, frozen, ready to eat. Intelligent use of these foods. Advantages and disadvantages.
8 Basic proportions and methods of making	Biscuits, scones and cakes made by rubbing-in, creaming, melting, whisking and one-stage methods. Pastries – short-crust, flaky and rough-puff. Sauces – pouring and coating; roux and blended methods. Batters – thin (pouring) and coating. Bread made with yeast.
9 Raising agents	Air, carbon dioxide, water vapour. Ways of introducing these gases into a mixture (to include bicarbonate of soda, baking powder, yeast).
10 Food spoilage, and hygiene in the handling and storage of food	Action of enzymes, bacteria, yeasts and moulds. Personal hygiene, hygiene in shops and markets, food storage at home, refrigeration, kitchen hygiene, waste disposal.

4. Syllabus content

Topic	Areas of study
11 Food preservation	Reasons for preserving food. Methods of preservation and an understanding of the principles involved. Heating – canning, bottling. Removal of moisture – drying. Reduction in temperature – freezing. Chemical preservation – sugar (jam-making), salt, vinegar. The processing of milk. The use of enzymes and bacteria in the manufacture of cheese and yoghurt.
12 Kitchen planning	Organisation of cooking area and equipment for efficient work. Kitchen surfaces – walls, floors, work surfaces.
13 Kitchen equipment	Choice, use and care of cookers, thermostatic control, automatic time-controlled ovens, microwave ovens, slow electric cook pots and other modern developments. Refrigerators, freezers, small kitchen equipment (knives, saucepans, oven tins, scales, etc.).
14 Kitchen safety, simple first aid	Awareness of potential danger areas in the kitchen. Safety precautions. First aid for cuts, burns and scalds, shock, electric shock, fainting.

5. Practical 2: Practical test

5.1 Practical test administration

Centres should give examiners access to the Confidential Instructions, a generic mark scheme (see section 5.2) and a specific mark scheme for Choice and Results for the relevant exam session.

Candidates are given specific test questions according to the Confidential Instructions. They are expected to complete three Preparation Sheets within the planning time limit of 1 hour 30 minutes.

On the day of the Planning Session for the practical exam, each candidate is given the specific test chosen for them and three carbonised Preparation Sheets:

- Page 1 – Plan of work (see section 7.1);
- Page 2 – Time plan (see section 7.2);
- Page 3 – Shopping list (see section 7.3).

Page 1 – Plan of work

Candidates list the names of the dishes they have chosen in the correct order to answer the question set. Next to each named dish they must give a list of the exact amounts of ingredients required to make the dish.

Page 2 – Time Plan

Candidates must show clearly how they plan to cook their chosen dishes within the time limit of 2 hours 30 minutes. For each dish, they must include methods, cooking times, temperatures, washing up and serving details. They must show a sensible sequence for serving the dishes (hot, if required) at the end of the test time. Candidates should list any special points such as special tools, time preparation and consistencies.

Page 3 – Shopping list

Candidates must list the correct total quantities of all ingredients in the sections for the different types of foods. In the section for special equipment, they should list items like cooking dishes, serving dishes, etc.

At the end of the planning session, the Centre should separate the carbonised sheets. Centres should keep the **top copies** of all three sheets securely and should make them available to the examiner. The examiner must mark these sheets **before** the actual cooking.

Centres should keep Pages 1 and 2 of the **duplicate** securely and return them to the candidates on the day of the practical exam so that they can be used during cooking.

Centres should give Page 3 (Shopping list) to the teacher as soon as it is completed, so that he or she can order ingredients for each candidate.

5. Practical 2: Practical test

5.2 Generic mark scheme

The detailed mark scheme allows examiners to keep a uniform standard.

To pass a candidate must work systematically, using a reasonable degree of skill, good methods and sound recipes. At least **half** of the resulting dishes should be of a **good** standard – well served, with good appearance, consistency, texture and flavour. If the **main** dishes of the test are inedible, then a pass result should not be given.

Allocation of marks

Examiners should record the marks on the Practical Examination Working Marksheet. They must scale the final raw mark **to a mark out of 100** before transferring it to the MS1 marksheet.

The total of 150 is divided as follows:

1	Preparation session – choice and plan	50
2	Method of working	55
3	Quality of dishes	35
4	Serving and appearance	10

Detailed allocation of marks

1	Preparation session	(maximum 50 marks)	Choice	20 marks
			Plan	30 marks

(a) Choice (maximum 20 marks)

General Points – these apply to each test.

Candidates should choose dishes that meet the requirements of the specific tasks and that:

- (i) show a variety of skills and processes;
- (ii) combine to form well-balanced meals;
- (iii) have attractive appearance;
- (iv) show thought for economy in fuel and food;
- (v) show an awareness of the time available for cooking and serving.

Candidates should choose **quantities** that are appropriate for the number being served.

Examiners should give credit for variety in texture and for inclusion of **local fruit** and **vegetables**.

5. Practical 2: Practical test

(b) Plan of Work (maximum 30 marks)

Please note and mark the following points:

(i) Recipe section (5 marks)

Candidates must clearly list the dishes they have chosen, giving the quantity of each ingredient for each dish.

(ii) Planning section (23 marks)

- 1 Candidates should give a logical sequence of work, from the beginning of the test to final serving, with each item followed through to serving stage. This is the most important part of the plan. Candidates should be able to show that they know exactly what they are going to do throughout the test time and must write it down in clear order, with enough time given to each section. (10 marks)
- 2 Candidates must indicate the method for each dish clearly: for example, make cake – creaming method; make sauce – roux method. (5 marks)
- 3 Candidates must give the oven temperature needed for each dish and the cooking time (although this can be included in the Choice section). (3 marks)
- 4 Candidates should allow time for cleaning and dish-washing at convenient points in the plan (not necessarily after every dish). (3 marks)
- 5 Candidates should show the time that they have allowed for serving meals, in the correct order of courses. They do not need to give detailed timing – it is better for them to give a sensible guide. (2 marks)

(iii) Shopping List (2 marks)

Candidates must list the correct total quantities of ingredients needed under the correct headings. They should also list any special equipment that they need.

(2 marks)

5. Practical 2: Practical test

2 Marking the method of working (maximum 55 marks)

As a general guide, examiners should give 28 out of 55 for methods that just deserve a pass, 33 out of 55 for a really sound pass and 44 out of 55 for very good methods, excellent timing and a variety of skills shown – they should only give this mark to a very able candidate. Examiners must not give more than 25 out of 55 to a candidate who shows little skill and who has not chosen enough dishes for the available time.

Most candidates will probably get between 28 and 42 marks.

Examiners should consider the following points when deciding on this mark. CIE has provided these sections to guide the examiner in choosing the total mark for this section.

- (a) The candidate's **general approach** should be business-like and confident, and should show that she/he has knowledge and clear understanding of the recipes and methods being used, as well as a sense of timing.
(5 marks)
- (b) **Manipulation** – correct use of tools, skill in handling mixtures, and large and small equipment. Correct preparation of dish, meat, vegetables, fruit, seasonings and flavourings, etc.
(20 marks)
- (c) Judgement of consistencies of various mixtures (for example, scone mixtures, cake mixture, etc.) **before** actual cooking.
(10 marks)
- (d) Good **hygienic** methods and **economy** in using fuel and food.
(5 + 5 marks)
- (e) **Oven management** – control of heat on top of the stove. Knowledge of correct oven temperatures and positioning of dishes in the oven.
(5 marks)
- (f) Tidy and methodical work throughout.
(5 marks)

If a candidate is extremely untidy then the examiner can take off more than 5 marks. If this happens, the examiner should make a comment on the mark sheet.

If a candidate is preparing very simple dishes, the examiner should reduce the maximum mark of 55 to an appropriate level.

The term 'fresh vegetables' includes preparing and cooking root and/or green vegetables. Salads, which should include a variety of vegetables and fruits, may be marked to a maximum of 6, and dressing to a maximum of 4, according to the type and the skill involved in making them.

5. Practical 2: Practical test

Please note that tinned, frozen and freeze-dried vegetables and instant coffee should receive a maximum of 1 mark each. Commercially prepared fruit juice or squash should be given 0 marks. These marks only apply to the result. Examiners should give credit in the last section if the vegetables are served and presented well, but should give no mark for tinned juice, etc.

3 Quality of dishes **(maximum 35 marks)**

Examiners must taste all dishes and mark each dish according to flavour, texture and edibility. They must lower the maximum mark for simple dishes involving little skill. Dishes added after the planning session has been completed must not be given a mark.

When assessing the quality of finished dishes, examiners should add comments on the assessment sheet about the flavour, texture and edibility of each dish.

Serving and appearance are assessed separately.

4 Serving and appearance **(maximum 10 marks (usually 5 + 5))**

Serving – note the following points: sequence of serving meal, correct temperature of food and serving dishes.

Appearance – attractive presentation, tasteful garnishing and decoration. Cleanliness of dishes and tablecloth. Correct use of d'oyleys (doilies) and dish papers. Suitable, simple flower arrangement.

Important note: Examiners must scale the raw mark out of 150 to a mark out of 100.

5. Practical 2: Practical test

5.3 Practical Examination Working Marksheet (see section 7.4)

- 1 Use one copy for each candidate.
- 2 Mark the three planning sheets **before** the actual cooking, using the specific **mark scheme for Choice** and the generic mark scheme. Transfer these marks to the Practical Examination Working Marksheet. Give comments/annotation to explain how you have awarded marks.
- 3 While the candidates are cooking the dishes that they have planned, complete the **method of working, results** and **servicing** sections, using the specific **mark scheme for Quality/Results** for each session and the generic mark scheme. It is particularly important that you include comments/annotation in these sections to support the marks you have awarded.

5.4 Summary Marksheet (see section 7.5)

Each Centre must provide a Summary Marksheet. Examiners should complete this, listing (in correct exam order) the candidate numbers, names, marks for each section of the work, a total mark (out of 150) and a **scaled final mark** (out of 100) for each candidate. An independent person should check all the marks.

Send the following items to CIE, immediately after all the practical sessions have been completed:

- Marked top copies (pages 1, 2 and 3) of the candidates' Preparation Sheets;
- One completed Practical Examination Working Marksheet per candidate (section 7.4 of syllabus);
- One copy of the Summary Marksheet per Centre (section 7.5 of syllabus).

You can find more detailed information about the practical exam in the Coursework Training Handbook.

5.5 Note on internal moderation

If two or more teachers in a Centre are involved in internal assessments, the Centre must make sure that all candidates are assessed to a common standard. When entering candidates from different teaching groups (for example, different classes), the Centre must make sure that the marks for each skill are moderated internally. In practice, this means that all marks within a Centre must be brought to a common standard by the teacher responsible for co-ordinating internal assessment (i.e. the internal moderator). The aim is to produce a valid and reliable set of marks, which reflects the relative attainment of all candidates in the Centre. The outcome of internal moderation, in terms of the number of marks added to (or subtracted from) the candidate's initial total, must be clearly shown when these marks are transferred onto the Summary Marksheet.

6. Assessment forms

- 6.1 Preparation for the practical examination: Page 1 – Plan of Work
- 6.2 Preparation for the practical examination: Page 2 – Time Plan
- 6.3 Preparation for the practical examination: Page 3 – Shopping List
- 6.4 O Level Practical Examination Working Marksheet
- 6.5 O Level Practical Examination Summary Marksheet

6.3 Preparation for the Practical Examination

Page 3 – Shopping List

SYLLABUS	
COMPONENT	

Centre Number		Centre Name	
Candidate Number		Candidate Name	
June/November	2 0 1 1	Test Number	

Milk & milk products	Fruit & Vegetables	Fresh fish, meat & poultry
		Cereals & cereal products
		Canned, frozen & packaged foods
	Condiments & Spices	Other ingredients

Mark with a * items brought from home

Special equipment and/or serving dishes

6.4 O Level Practical Examination Working Marksheet

Centre Number					Centre Name	
June/November	2	0	1	1	Examiner's Name	
Candidate Number					Candidate Name	Test No

Planning		Mark Available		Mark Awarded
		Choice	20	
		(i)	5	
		(ii) 1	10	
		2	5	
		3	3	
		4	3	
		5	2	
		(iii)	2	
		Total	50	
Method of working		General approach	5	
		Manipulation	20	
		Consistency	10	
		Hygiene and economy	5+5	
		Oven management	5	
		Tidy and methodical	5	
		Total	55	
Dishes chosen	Quality/results: flavour/texture/edibility	Mark available for each dish		Mark awarded each dish
		Name	Marks	
		Total	35	
Serving and appearance		Serving	5	
		Appearance	5	
		Total	10	
		Total	150	
		SCALED MARK	100	

6.5 O Level Practical Examination Summary Marksheet

Centre Number					Centre Name	
June/November	2	0	1	1	Examiner's Name	

Candidate Number	Candidate Name	Preparation		Method of working (max 55)	Quality/ results (max 35)	Serving/ appearance (max 10)	Total (max 150)	Scaled Total (max 100)
		Choice (max 20)	Planning (max 30)					

Notes:



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